

**Willow Flycatcher Module
for the
Timber Harvest Review Component**

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Northern California – North Coast Region
Interior Timberland Planning Team**

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Resource Issue

Willow flycatchers (WIFL) historically nested throughout much of California where mesic willow thickets were found (Grinnel and Miller 1944). In the later half of the 20th century, breeding populations of WIFLs have declined drastically from most lower elevation habitats (Serena 1982). Most of the remaining breeding populations in the Northern California-North Coast Region (NC-NCR) occur in isolated mountain meadows up to 8000' in elevation (Remsen 1978, Garrett and Dunn 1981, Serena 1982, Unit 1987). The WIFL has specific habitat requirements, typically consisting of riparian areas often dominated by willows (*salix spp*), and/or alder (*Alnus spp*), and permanent water, often in the form of low gradient watercourses, ponds, lakes, wet meadows, marshes, and seeps. Presence of these habitat conditions may indicate potential use by WIFLs. Besides the above described typical habitat, WIFLs may also use other habitats, such as upland or heavily managed timber stands. Observations in California suggest that northern California WIFLs might not conform to breeding habitat descriptions that are based on work in the central and southern Sierra Nevada (Craig et al. 1992). In the Modoc National Forest, the WIFL has been found occupying breeding habitat with a shrub component of *Prunus*, *Ribes*, *Cercocarpus*, and other shrub species (Craig et al 1992).

The WIFL arrives from their wintering areas in Central and South America during May and June (Bent 1942, Zeiner et al. 1988). The males usually arrive first and females arrive within a week of the males and begin pair formation (Garrett and Dunn 1981, Stafford and Valentine 1985). In California, fledglings and adults usually stay in the breeding areas through the end of August (KRCD 1988).

The greatest historical factor in the decline of the WIFL is the extensive loss, fragmentation, and modification of breeding habitat. Large scale losses of wetlands have occurred, especially those associated with riverine systems in both valley and montane habitats (Phillips et al. 1964, Johnson and Haight 1984, Katibah 1984, Klebenow and Oakleaf 1984, Unisicker et al. 1984, Johnson et al. 1987, Unitt 1987). Changes in the hydrology and riparian plant community have reduced, degraded and eliminated nesting habitat for the WIFL, contributing to its decline in distribution and

numbers (Serena 1982, Cannon and Knopf 1984, Klebenow and Oakleaf 1984, Taylor and Littlefield 1986, Unitt 1987, Schlorff 1990).

Habitat degradation and loss alone are probably not the only reason for its decline. Other factors such as nest parasitism by brown-headed cowbirds, water diversions, meadow erosion, events on the wintering grounds, and disturbance and habitat degradation from grazing and logging could have all contributed to the WIFL decline (Serena 1982, Harris et al. 1987, Sharp 1987, Valentine et al. 1988). The main impacts from timber harvest activities are physical disturbance during the breeding season, hauling on adjacent and appurtenant roads, and yarding. These activities can interfere with breeding efforts and may result in take (as defined in Fish and Game Code Section 86) due to noise, dust, and physical impacts.

The WIFL was listed by the State of California in 1990 as an Endangered Species and the Pacific Southwest Region of the U.S. Forest Service and Region 1 of the U.S. Fish and Wildlife Service have designated the WIFL as a Sensitive Species. The take of the fully protected and State-listed threatened WIFL is prohibited per Fish and Game Code sections 2080 and 3511. Also, THPs that may result in take must not be approved by the California Department of Forestry and Fire Protection (Forest Practice Rule Section 898.2(d)). Significant impacts to WIFLs or their habitat is a significant effect on the environment (California Environmental Quality Act, Title 14, California Code of Regulations (CEQA Guidelines), Section 15065) as defined in CEQA Guideline Section 15382, and must be mitigated. Therefore, the Team consults on any THP which may result in take of or potential significant impacts to WIFL or their habitat.

Goal

- Ensure that WIFLs and their breeding habitats are adequately protected through the review of Timber Harvesting Plans (THPs)

Objectives

- Review THPs to determine if WIFL habitat potentially occurs in timber harvesting units and are identified and appropriate protection measures are in place
- Conduct active and post-harvest monitoring to determine if WIFL protection measures stated in the THP are implemented during timber operations
- Continue to acquire information on the response of WIFLs to various management operations

Strategic Plan

Current staffing does not permit DFG to field review all THPs for potential WIFL habitat. During first review all THPs are screened for potential WIFL habitat using the WIFL habitat prediction model. This model was developed as a predictive tool for identifying montane meadow habitats and is currently the standard used by DFG for identifying potential habitat.

For any THP having the potential to result in direct or indirect take to WIFLs or their breeding habitats, a consultation must be completed. Newly proposed and/or amended THPs must contain sufficient information/documentation to allow an assessment for significance of any potential impacts, and to evaluate the adequacy of proposed mitigation/protection measures.

A consultation will be necessary if any of the following conditions exist:

- WIFLs are known to occur onsite and/or breeding habitat exists in the THP boundary or within 300', including appurtenant and haul roads
- Operations are planned to occur within occupied or suspected habitat during the breeding season
- Helicopter yarding operations are planned to occur within 0.25 mile of occupied or suspected habitat during the breeding season
- The standard protection measures for WIFLs have not been adopted and one or more of the conditions listed above is true
- WIFLs are discovered during active timber harvest operations during the breeding season
- Impacts will alter the hydrology, solar exposure, and/or the vegetative condition of the site

Standard Protection Measures

The conditions on each THP are unique and protection measures may vary as situations change from THP to THP. However, standard protection measures are used as a base for each THP reviewed or consulted. The following are the standard protection measures:

1. No timber harvest operations shall be permitted within 300 feet of potential willow flycatcher habitat during the breeding season (May 1 through August 31) unless surveys have been conducted in accordance with protocols endorsed by DFG and no WIFLs have been detected. The current survey protocols endorsed by DFG are A Willow Flycatcher Survey Protocol for California, developed by Helen L. Bombay, Teresa M. Ritter, and Brad E. Valentine, June 2000. If protocol surveys have been conducted and no willow flycatchers have been detected, operations may proceed during the breeding season after DFG has been notified. (To determine use by WIFLs in typical habitats and previously known occupied atypical habitats, breeding season surveys are necessary prior to initiating operations that may result in a direct disturbance to the habitat or to breeding WIFLs.)
2. Existing roads which have a history of being well traveled during the willow flycatcher breeding season and pass no closer than 100 feet of occupied willow flycatcher habitat may be used between May 1 and August 31 provided they are routinely watered to minimize dust production. In addition, truck drivers shall refrain from using "jake brakes" in these areas.

Otherwise, construction or use of roads within 300 feet of occupied willow flycatcher habitat during the breeding season is prohibited.

3. Any operations conducted within or adjacent to suitable willow flycatcher habitat shall not damage or destroy willows or other riparian shrubs. Any trees harvested in or near suitable habitat shall be felled away from willows or other riparian shrubs. Skidders or tractors shall not be operated so as to impact suitable habitat and when necessary to protect suitable habitat, logs shall be endlined. Harvest of trees which can not meet these conditions shall be forgone.
4. For WIFLs located during surveys, a Natural Diversity Database form shall be completed and sent to the DFG at 601 Locust St, Redding, CA 96001.

Monitoring

Monitoring will be an important component of THP review and will also include active and post-harvest inspections, and might include both implementation and effectiveness monitoring. Implementation monitoring in the field is essential, as it will determine whether companies are actually implementing the protection measures specified in the THPs. Effectiveness monitoring is also important to determine the efficacy of the prescribed protection measures.

Adaptive Management

Adaptive management is important to the long-term effectiveness of WIFL protection during timber operations. In general, not enough is known about the responses of WIFLs to specific timber operations. Because of this, the protection measures for WIFLs should be designed with the flexibility of being updated whenever new data becomes available. Effectiveness monitoring results should be evaluated and, if necessary, used as the basis for developing improved mitigation measures. These evaluations will permit incorporation of necessary revisions into future plans and ensure that appropriate updates to the protection measures for WIFLs are included.

Measures of Success

Success will be measured by the extent to which the following are met:

- Increased frequency in which initially-submitted THPs identify WIFL habitat and include standard protection measures for WIFLs.
- Increased frequency of WIFL pre-consultations with DFG to reduce THP review time for both DFG and timber companies.
- Execution of active and post-harvest monitoring aimed specifically at detecting the implementation and effectiveness of the standard protection measures.

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